

Appl. No. 09/891,616
Amdt. of February 18, 2004
Reply to Office Action of November 18, 2003

Amendments to the Claims:

Listing of Claims:

1. (Currently Amended) A method for diverting articles selected for removal from a stream of articles traveling along a pathway on a conveyor, said method comprising the steps of:

locating a deflector member adjacent to said pathway;

~~acceleratingly rotating said deflector member into said pathway;~~

~~contacting a selected article;~~

~~controllably sweeping and removing said selected article from said stream of articles;~~

adapting said deflector member to (1) acceleratngly rotate into said pathway and contact a selected article at, or in a zone immediately adjacent to and below, a center of gravity thereof and (2) controllngly sweep in a manner of a sling action said selected article away from said member and remove it from said stream of articles;

further rotating said deflector member out of said pathway to allow subsequent and non-selected articles in said stream to continue along said pathway without being impeded by said deflector member; and

adapting a synchronous motor to act in response to a predetermined signal to cause the ~~said rotations of said deflector member~~ to rotate.

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2. (Currently amended) A method for diverting beverage containers selected for removal from a stream of beverage containers traveling along a pathway on a conveyor, said method comprising the steps of:

locating a deflector member adjacent to said pathway, wherein said deflector member slightly deviates from the vertical toward said pathway;

~~acceleratingly rotating said deflector member into said pathway;~~

~~contacting a selected beverage container;~~

~~controllably sweeping and removing a selected beverage container from said stream of beverage containers;~~

adapting said deflector member to acceleratingly rotate into said pathway and initially contact a selected beverage container at, or in a zone immediately adjacent to and below, a center of gravity thereof and controllably sweep in a manner of a sling action said selected beverage container from said deflector member and remove same from said stream of beverage containers;

reversing the rotation of said deflector member;

removing said deflector member from said pathway by reversing the rotation of said deflector member to allow subsequent non-selected beverage ~~container~~ containers in said stream to continue along said pathway without being impeded by said deflector member; and

adapting a synchronous motor to act in response to a predetermined signal to cause the ~~said rotations of said deflector member~~ to rotate.

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3. (Previously Amended) The method according to Claim 1 wherein said deflector member is adapted to initially contact said selected article or said selected beverage container adjacent its center of gravity.
4. (Previously Amended) The method according to Claim 1 wherein said deflector member is adapted to initially contact said selected article at, or in a zone, immediately adjacent to and below, its center of gravity.
5. (Previously Amended) The method according to Claim 1 wherein a degree of and/or a speed of rotation of the deflector are/is variable and determined by the predetermined signal to achieve a desired lateral movement of said selected article or said selected beverage container from said stream of the selected articles.
6. (Previously Amended) The method according to Claim 4 wherein said signal originates from a sensing device and which identifies a specific condition selecting said article for rejection.
7. (Canceled)

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8. (Previously Amended) A device for diverting an article selected for removal from a stream of articles traveling along a pathway on a conveyor said device comprising:

a synchronous electric motor; and

an article deflector member, wherein the deflector member is

(i) located adjacent said pathway;

(ii) acceleratingly rotatable by said motor into said pathway to contact and

controllably sweep a selected article from said stream and,

(iii) rotatable by said motor out of said pathway to allow subsequent unselected articles to continue traveling along said pathway without contacting said deflector member.

9. (Original) The device according to Claim 8 wherein the article deflector member is mounted directly on to a drive shaft of said motor.

10. (Original) The device according to Claim 9 wherein the article deflector member is elongate and is rotatable in a horizontal manner about a vertical axis.

11. (Previously Amended) The device according to Claim 9 wherein said motor is adapted to rotate said deflector member out of said pathway by rotating said deflector member in a reverse direction to said first rotation.

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12. (Previously Amended) The device according to Claim 8, further comprising a bracket means to secure said device to an associated conveyor.

13. (Previously Amended) The device according to Claim 12 wherein said bracket means is provided with an adjusting means adapted to allow a position of said article deflector means to be varied in a vertical and/or horizontal position relative to said pathway of said associated conveyor.

14. (Previously Amended) A device for diverting an article selected for removal from a stream of articles traveling along a pathway on a conveyor said device comprising

a conveyor;

a synchronous electric motor; and

an article deflector member, wherein said article deflector member is located adjacent said pathway acceleratngly rotatable by said motor into said pathway to contact and controllably sweep a selected article from said stream, and rotatable by said motor out of said pathway to allow subsequent unselected articles to continue traveling along said pathway without contacting said deflector member.

15. (Original) The device according to Claim 14 wherein the article deflector member is elongate and is rotatable horizontally about a vertical axis to extend over said pathway.

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16. (Original) The device according to Claim 14 or 15 wherein said motor is adapted to rotate said deflector member out of said pathway by rotating same in a reverse direction to said first rotation.

17. (Previously Amended) The device according to Claim 14 or 15, further comprising a bracket means to secure said deflector member to said conveyor.

18. (Previously Amended) The device according to Claim 14 wherein said bracket means comprises an adjusting means adapted to allow the position of said article deflector means to be varied in a vertical and/or a horizontal position relative to said pathway of said conveyor.

19. (Previously Added) The method according to Claim 2 wherein said deflector member is adapted to initially contact said selected beverage container adjacent its centre of gravity.

20. (Previously Added) The method according to Claim 2 wherein said deflector member is adapted to initially contact said selected beverage container at, or in a zone, immediately adjacent to and below, its center of gravity.

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21. (Previously Added) The method according to Claim 1 wherein a degree of and/or a speed of rotation of the deflector is variable and is determined by the predetermined signal to achieve a desired lateral movement of said selected beverage container from said stream of the selected articles or said stream of selected beverage containers.

22. (Previously Added) The method according to Claim 4 wherein said signal originates from a sensing device and which identifies a specific condition selecting said beverage container for rejection.

23. (Previously Added) The method according to Claim 1 wherein following sweeping and removing said selected article from said stream of articles, reversing the rotation of said deflector member and removing said deflector member from said pathway to allow subsequent non-selected articles in said stream to continue along said pathway without being impeded by said deflector members.